



IPW

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Dong-Sun LIM et al.

Group Art Unit: 2184

Serial No.: 10/667,160

Docket: 784-55

Filed: September 17, 2003

Dated: May 13, 2004

For: ADAPTIVE HYBRID AUTOMATIC REPEAT  
REQUEST METHOD AND APPARATUS

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to Applicants' duty of disclosure, the information listed in the attached form PTO-1449 is brought to the attention of the Examiner. A copy of each reference is attached hereto.

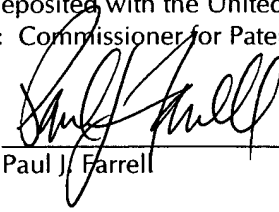
The citation of the listed items is not a representation that they constitute a complete or exhaustive listing of the relevant art or that the references are prior art. The items listed are submitted in good faith, but are not intended to substitute for the Examiner's search. It is hoped, however, that in addition to apprising the Examiner of these particular items, they will assist in identifying fields of search and in making as full and complete a search as possible.

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**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postpaid in an envelope, addressed to the: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on May 13, 2004.

Dated: May 13, 2004

  
Paul J. Farrell

The filing of this Information Disclosure Statement is not an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

To the best of Applicants' knowledge, this Information Disclosure Statement is being filed before the date of mailing of a first Office Action in connection with this case.

The claims of the application as now presented are believed to patentably distinguish over the prior art and to be in condition for allowance. Early and favorable consideration of the case is respectfully requested.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Paul J. Farrell".

Paul J. Farrell

Reg. No. 33,494

Attorney for Applicants

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Sheet 1 of 1

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|--|-----------------------------------|--------------------------|
| Form PTO-1449<br>U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE<br><br>INFORMATION DISCLOSURE<br>STATEMENT BY APPLICANT<br><br>(Use several sheets if necessary) | ATTY. DOCKET NO.<br>784-55        | SERIAL NO.<br>10/667,160 |
|  | APPLICANTS<br>Dong-Sun LIM et al. |                          |
|  | FILING DATE<br>September 17, 2003 | GROUP ART UNIT<br>2184   |

| U.S. PATENT DOCUMENTS |  |                 |      |      |       |          |                               |
|-----------------------|--|-----------------|------|------|-------|----------|-------------------------------|
| EXAMINER<br>INITIAL   |  | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE<br>IF APPROPRIATE |
|                       |  |                 |      |      |       |          |                               |
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| FOREIGN PATENT DOCUMENTS |  |                 |      |         |       |          |             |    |
|--------------------------|--|-----------------|------|---------|-------|----------|-------------|----|
|                          |  | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION |    |
|                          |  |                 |      |         |       |          | YES         | NO |
|                          |  |                 |      |         |       |          |             |    |
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| OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.) |  |   |
|--|--|---|
|  |  | 1. Lin et al., "A Hybrid ARQ Scheme with Parity Retransmission for Error Control of Satellite Channels", IEEE Transactions on Communications, Vol. COM-30, No. 7, July 1982, pp. 1701-1719. |
|  |  | 2. Ahn et al., "Hybrid ARQ Protocol for Real-Time ATM Services in Broadband Radio Access Networks", 1999 IEEE Tencon, pp. 1379-1382.  |
|  |  | 3. Coulton et al., "Simple Hybrid Type II ARQ Technique Using Soft Output Information", Electronic Letters, 28 <sup>th</sup> September 2000, Vol. 36, No. 20, pp. 1716-1717.                |
|  |  | 4. Chung et al., "On the Design of Low-Density Parity-Check Codes within 0.0045 dB of the Shannon Limit", IEEE Communications Letters, Vol. 5, No. 2, February 2001, pp. 58-60.             |
|  |  | 5. MacKay et al., "Near Shannon Limit Performance of Low Density Parity Check Codes", Electronic Letters, 13 <sup>th</sup> March 1997, Vol. 33, No. 6, pp. 457-458.                         |
|  |  |   |

|          |                 |
|----------|-----------------|
| EXAMINER | DATE CONSIDERED |
|----------|-----------------|

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.